(a) Exemplary claim 52 includes:

"an inverter circuit connected between ... first and second DC supply terminals ...[and] ... functional to supply a ... high-frequency ... AC output voltage between a first and a second AC output terminal ... any high-frequency AC voltsge that might exist between the second AC output terminal and one of the DC supply terminals being of very small magnitude compared with the magnitude of the high high-frequency AC output voltage".

This feature, among other features of claim 52, is not suggested by the claims of patent No. 4,692,667 ('667).

If Examiner were to remain of a different opinion, he is requested to explain where and/or how the claims of '667 suggest this feature.

(b) Exemplary claim 54 includes:

"an inverter type ballasting circuit having DC input terminals ... [and] ... being ... characterized by: (i) having a first transistor with a first transistor terminal connected with a second transistor terminal of a second transistor; and (ii) causing a substantially sinusoidal AC voltage to exist between the first transistor terminal and one of the DC input terminals".

This feature is not suggested by the claims of '667.

If Examiner were to remain of a different opinion, he is requested to explain where and/or how the claims of '667 suggest this feature.

(c) Exemplary claim 59, in combination with a plurality of other elements, includes:

"an inductor means having a first winding and a second winding".

This feature is not suggested by the claims of '667.

If Examiner were to remain of a different opinion, he is requested to explain where and/or how the claims of '667 suggest this feature.

(d) Exemplary claim 65 includes:

"an inductor means having a first winding and a second winding".

This feature is not suggested by the claims of '667.

If Examiner were to remain of a different opinion, he is requested to explain where and/or how the claims of '667 suggest this feature.

(e) Etc.

Examiner rejected claims 67-71, 74 and 76-79 under 35 USC 112, second paragraph.

Applicant traverses these rejections with respect to claim 67 and 70-71, amends claims 68-69, 74 and 76 such as to overcome Examiner's concerns, and cancels claims 77-79.

With respect to independent claim 67, Examiner supports his rejection by referring to the claim's last two lines, saying that:

"it is not particularly pointed out what terminal means is referred to".

Examiner's statement is unclear. Applicant can not find the term "terminal means" mentioned in the last two lines of claim 67.

What Applicant does find is a reference to "one of the second pair of terminals".

However, as would be entirely clear and distinct to a person possessing but ordinary skill in the particular art pertinent hereto, the term "one of the second pair of terminals" refers back to the term "second pair of terminals"; which latter term is defined in the fifth-from-last line of claim 67.

Thus, "one of the second pair of terminals" is simply one of the defined "second pair of terminals".

What is unclear or indistinct about that?

Examiner rejected claims 59 and 62-63 under 35 USC 102b as being anticipated by Burke.

Applicant traverses these rejections for the following reasons.

(f) Exemplary claim 59 includes in interconnected combination:

"rectifying and filtering means ... functional to provide a substantially constant-magnitude DC supply voltage between a first and a second DC supply terminal", (Emphasis added)

"an inductor means having a first winding and a second winding", and

"an inverter circuit having ... a first terminal connected with the first DC supply terminal by way of the first winding ... and ... a second terminal connected with the secobd DC supply terminal by way of the second winding".

This feature is neither described nor suggested by Burke.

If Examiner were to maintain a different opinion, he is requested to shown where and/or how Burke describes or suggests the above-defined feature.

In Burke, the voltage present across capacitor 32 is not a "constant-magnitude DC supply voltage". Instead, as may be understood with exemplary reference to Burke's column 6, lines 48-55 (and as a person possessing ordinary skill in the particular art pertinent hereto would readily understand even without relying on this reference), the voltage across Burke's capacitor 32 (whose capacitance is only 3 micro-Farad) is a "full wave pulsating DC voltage"; which more accurately could be described as a non-yet-filtered full-wave-rectified AC power line voltage.

Filtering of this "pulsating DC voltage" is mainly accomplished by Burke's inductor means 31/34 and his filter capacitor 33 (whose capacitance is 35 micro-Farad).

Thus, Burke's circuit provides a "constant-magnitude DC supply voltage" across his filter capacitor 33.

In other words, Burke's inductor means 31/34 can not be equated with the "inductor means" in claim 59.

The function served by Applicant's "inductor means" corresponds to the function served by Burke's inductor 10. However, inductor 10 does not have two windings.

Examiner rejected claims 59-68, 70-72, 74-76, 84-89 and 96-97 under 35 USC 103 as being unpatentable over Burke, Walden and Zansky.

Applicant traverses these rejections for the following ressons.

(g) With reference to the arguments presented in Section (f) above with respect to Examiner's "102" rejections over Burke, it is clear that Examiner has misunderstood the operation of Burke's circuit; which misunderstanding carries through and invalidates instant "103" rejections.

(h) Exemplary claim 59 includes in interconnected combination:

"rectifying and filtering means ... functional to provide a substantially constant-magnitude DC supply voltage between a first and a second DC supply terminal", (Emphasis added)

"an inductor means having a first winding and a second winding", and

"an inverter circuit having ... a first terminal connected with the first DC supply terminal by way of the first winding ... and ... a second terminal connected with the second DC supply terminal by way of the second winding".

This feature is not suggested by any of the applied references.

If Examiner were to continue to maintain otherwise, he is requested to show where and/or how the applied references suggest this particular feature.

(i) Exemplary claim 65 includes:

"rectifying and filtering circuit ... functional to provide a filtered DC supply voltage between a first and a second DC supply terminal",

"an inductor means having a first winding and a second winding", and

"an inverter circuit ... having a first terminal connected with the first DC supply by way of the first winding ... and ... a second terminal connected with the second DC terminals by way of the second winding".

This feature is not suggested by any of the applied references.

If Examiner were to continue to maintain otherwise, he is requested to show where and/or how the applied references suggest this particular feature.

(j) Exemplary claim 67, in interconnected combination with plural other elements, includes:

"an inverter-type ballasting circuit ... characterized by ... including a first transistor having a first transistor terminal connected with a second transistor terminal of a second transistor ... and ... having a second pair of terminals between which exists a substantially sinusoidal AC voltage ... one of the second pair of terminals being the first transistor terminal".

This feature is not suggested by any of the applied references.

If Examiner were to continue to maintain otherwise, he is requested to show where and/or how the applied references suggest this particular feature.

(k) Exemplary claim 72 includes:

"an inductor means having a first winding and a second winding";

which inductor means has both its windings connected between a source of constant magnitude DC voltage and a pair of inverter DC input terminals.

This feature is not suggested by any of the applied references.

If Examiner were to continue to maintain otherwise, he is requested to show where and/or how the applied references suggest this particular feature.

(l) Exemplary claim 84 includes:

"a first electronic assembly having AC power input terminals operable to connect with an AC power line voltage and, when indeed so connected, to provide a DC supply voltage of substantially constant magnitude ... [as well as] ... structure operative to cause the absolute magnitude of the DC supply voltage to be distinctly higher than the peak absolute magnitude of the AC power line voltage".

This feature is not suggested by any of the applied references.

If Examiner were to continue to maintain otherwise, he is requested to show where and/or how the applied references suggest this particular feature.

CONCLUDING REMARKS

The patentability of newly added claims 98-100 is supported by the arguments presented in Section (h) hereinabove.

Ole K. Nilssen, Pro Se Applicant

1 52. An arrangement comprising:

a DC source functional to provide a DC supply voltage between a first and a second DC supply terminal;

an inverter circuit connected between the first and second DC supply terminals; the inverter circuit being functional to supply a high-frequency substantially sinusoidal AC output voltage between a first and a second AC output terminal; the high-frequency AC output voltage being of frequency several times higher than 60 Hz; any high-frequency AC voltage that might exist between the second AC output terminal and one of the DC supply terminals being of very small magnitude compared with the magnitude of the high-frequency AC output voltage; the inverter circuit being further characterized by including: (i) a first transistor having a first control input terminal, a first output terminal, and a first common terminal; and (ii) a second transistor having a second control input terminal, a second output terminal, and a second common terminal; the second output terminal being connected with the first common terminal, thereby to form a junction terminal; the junction terminal being connected with the first AC output terminal in such manner that: (i) substantially no unidirectional voltage drop can exist between the junction terminal and the first AC output terminal, and (ii) any alternating voltage existing between the junction terminal and the first AC output terminal is of very small magnitude compared with the magnitude of the high-frequency AC output voltage; a unidirectional voltage existing between the second common terminal and the first output terminal; the average magnitude of the unidirectional magnitude being substantially equal to that of the DC supply voltage; and

a gas discharge lamp connected in circuit with the AC output terminals.

2 53. The arrangement of claim 1 52 wherein the inverter circuit is further characterized by being connected with the DC supply terminals by way of an inductor means.

3 54. An arrangement comprising:

an AC source functional to supply an AC power line voltage at a pair of AC power line terminals;

rectifying and filtering means connected with the AC power line terminals and functional to provide a DC supply voltage at a pair of DC supply terminals;

a gas discharge lamp having lamp terminals; and

an inverter-type ballasting circuit having DC input terminals connected with the DC supply terminals and AC output terminals connected with the lamp terminals; the inverter-type ballasting circuit being functional to power the gas discharge lamp and being otherwise characterized by: (i) having a first transistor with a first transistor terminal connected with a second transistor terminal of a second transistor; and (ii) causing a substantially sinusoidal AC voltage to exist between the first transistor terminal and one of the DC input terminals; the frequency of the substantially sinusoidal AC voltage being several times higher than that of the AC power line voltage.

4
~~55~~. The arrangement of claim ~~54~~ 3 wherein a parallel-tuned L-C circuit is connected in circuit between the first transistor terminal and one of the DC input terminals; the parallel-tuned L-C circuit being naturally resonant at or near the fundamental frequency of the substantially sinusoidal AC voltage.

H' cont

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~~56~~. The arrangement of claim ~~54~~ 3 wherein the DC source is additionally characterized by including circuitry operative to cause the absolute magnitude of the DC supply voltage to be larger than the absolute peak magnitude of the AC power line voltage.

6
~~57~~. The arrangement of claim ~~54~~ 3 wherein the inverter-type ballasting circuit is further characterized in that: (i) the first transistor has a first control input terminal, a first output terminal, and a first common terminal; (ii) the second transistor has a second control input terminal, a second output terminal, and a second common terminal; (iii) the first transistor terminal is the first transistor's common terminal; (iv) the second transistor terminal is the second transistor's output terminal.

7
~~58~~. The arrangement of claim ~~57~~ 6 wherein the inverter-type ballasting means is yet further characterized in that: (i) a unidirectional voltage exists between the second transistor's common terminal and the first transistor's output terminal; and (ii) the absolute peak magnitude of the unidirectional voltage is larger than the absolute peak magnitude of the AC power line voltage.

8
~~59~~. An arrangement comprising:

an AC source functional to supply an AC power line voltage at a pair of AC power line terminals;

rectifying and filtering means connected with the AC power line terminals and functional to provide a substantially constant-magnitude DC supply voltage between a first and a second DC supply terminal;

an inductor means having a first winding and a second winding;

a lamp load having a pair of load terminals and including a series-combination of a gas discharge lamp and a current-limiting reactance means; and

an inverter circuit having: (i) a pair of AC output terminals connected with the load terminals and across which is provided an AC output voltage; (ii) a first terminal connected with the first DC supply terminal by way of the first winding; and (iii) a second terminal connected with the second DC supply terminal by way of the second winding.

9 8
~~60~~. The arrangement of claim ~~59~~ wherein the inverter circuit is further characterized by having a pair of transistors series-connected between the first terminal and the second terminal.

10 8
~~61~~. The arrangement of claim ~~59~~ wherein the rectifying and filtering means includes circuitry operative to cause the absolute magnitude of the DC supply voltage to be substantially higher than the absolute peak magnitude of the AC power line voltage.

11 8
~~62~~. The arrangement of claim ~~59~~ wherein the first winding and the second winding are magnetically coupled with each other.

12 8
~~63~~. The arrangement of claim ~~59~~ wherein the AC outout voltage has a substantially sinusoidal waveform.

13 8
~~64~~. The arrangement of claim ~~59~~ wherein the current-limiting reactance means is substantially a capacitive reactance.

14
~~65~~. An arrangement comprising:

an AC source functional to supply an AC power line voltage at a pair of AC power line terminals;

rectifying and filtering circuit connected with the AC power line terminals and functional to provide a filtered DC supply voltage between a first and a second DC supply terminal;

15

an inductor means having a first winding and a second winding;

a lamp load having a pair of load terminals; and

an inverter circuit characterized by: (i) having a pair of AC output terminals connected with the load terminals; (ii) providing a substantially sinusoidal AC output voltage across the AC output terminals; (iii) having a first terminal connected with the first DC supply terminal by way of the first winding; and (iv) having a second terminal connected with the second DC supply terminal by way of the second winding.

15 14

~~66~~. The arrangement of claim ~~65~~ wherein a pair of series-connected transistors is connected between the first terminal and the second terminal.

67. An arrangement comprising:

a rectifying and filtering circuit characterized by: (i) having a pair of AC power input terminals operable to connect with a pair of AC power line terminals across which exists an AC power line voltage, and (ii) having sub-circuitry operative, when the AC power input terminals are indeed so connected, to provide a DC supply voltage between a pair of DC supply terminals, the absolute magnitude of which DC supply voltage being distinctly higher than the peak absolute magnitude of the AC power line voltage; the rectifying and filtering circuit being further characterized by having an electrically conductive path between one of the DC supply terminals and one of the AC power input terminals, which electrically conductive path is characterized by existing irrespective of whether or not the AC power input terminals are connected with the AC power line terminals;

a gas discharge lamp having lamp terminals; and

an inverter-type ballasting circuit having DC input terminals connected with the DC supply terminals and AC output terminals connected with the lamp terminals, thereby to supply a lamp current to the gas discharge lamp; the inverter-type ballasting circuit being further characterized by: (i) including a first transistor having a first transistor terminal connected to a second transistor terminal of a second transistor; (ii) having the two transistors series-connected between a first pair of terminals; and (iii) having a second pair of terminals between which exists a substantially sinusoidal AC voltage of frequency several times higher than that of the AC power line voltage, one of the second pair of terminals being the first transistor terminal.

16

68. (Twice Amended) The arrangement of claim 67 [21] wherein the inverter-type ballasting circuit is additionally characterized by including [sub-circuitry operative] a sub-circuit functional to cause [in that] a unidirectional voltage to exist[s] between the first pair of terminals, the average magnitude of which unidirectional voltage is substantially equal to [the same as] that of the DC supply voltage.

69. (Amended) The arrangement of claim 67 wherein the arrangement [inverter-type ballasting circuit] is additionally characterized in that [the other one of the second pair of terminals is one of the DC supply terminals] a substantially sinusoidal AC voltage exists between the first transistor terminal and one of the DC supply terminals.

70. The arrangement of claim 67 wherein the rectifying and filtering circuit is additionally characterized in that the magnitude of the DC supply voltage is substantially constant.

71. The arrangement of claim 67 wherein the rectifying and filtering circuit is additionally characterized by being powered from ordinary 60 Hz single-phase AC power line voltage.

16

~~72~~. An arrangement comprising:

a first sub-circuit: (i) having AC power input terminals connected with an ordinary single-phase AC power line voltage, and (ii) being operative to provide a substantially constant-magnitude DC supply voltage between a first and a second DC supply terminal; the first sub-circuit having an electrically conductive path between one of the DC supply terminals and one of the AC power input terminals;

a second sub-circuit including an inductor means having a first winding and a second winding;

a lamp load having a pair of load terminals and including a series-combination of a gas discharge lamp and a current-limiting reactance means; and

a third sub-circuit circuit having: (i) a pair of AC output terminals connected with the load terminals and across which is provided an AC output voltage of frequency several times higher than that of the AC power line voltage; (ii) a first terminal connected with the first DC supply terminal by way of the first winding; and (iii) a second terminal connected with the second DC supply terminal by way of the second winding; a unidirectional voltage existing between the first terminal and

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the second terminal; the third sub-circuit also having a first and a second transistor series-connected between the first terminal and the second terminal; the two transistors being connected together at a common terminal; the average magnitude of the unidirectional voltage being substantially equal to that of the DC supply voltage.

17 16
~~13~~. The arrangement of claim ~~12~~ wherein the third sub-circuit is additionally characterized by having sufficient structure to cause a substantially sinusoidal AC voltage to exist between the common terminal and one of the DC supply terminals.

18 16
~~14~~. (Amended) The arrangement of claim ~~12~~ wherein the third sub-circuit is additionally characterized in that the first transistor has a first transistor terminal connected to the first [B-] terminal and the second transistor has a second transistor terminal connected to the second [B+] terminal.

H1 cont

19 16
~~15~~. The arrangement of claim ~~12~~ wherein the first sub-circuit is additionally characterized by including sufficient structure to cause the absolute magnitude of the DC supply voltage to be distinctly higher than the absolute peak magnitude of the AC power line voltage.

20 16
~~16~~. (Amended) The arrangement of claim ~~12~~ wherein the third sub- circuit is additionally characterized by having a third and a fourth transistor series-connected between the first [B-] terminal and the second [B+] terminal.

21
~~80~~. An arrangement comprising:

a first sub-circuit: (i) having AC power input terminals connectable with an ordinary single-phase AC power line voltage, and (ii) being operative to provide a substantially constant-magnitude DC supply voltage between a negative and a positive DC supply terminal; a first capacitor being connected between the negative DC supply terminal and a reference terminal; a second capacitor being connected between the positive DC supply terminal and the reference terminal;

a second sub-circuit including an inductor means having a first inductor winding and a second inductor winding;

a gas discharge lamp; and

a third sub-circuit circuit having: (i) a first terminal and a second terminal connected with the negative and the positive DC supply terminals by way of the first and the second

inductor windings thereby to cause a unidirectional voltage to exist between the first terminal and the second terminal; the average magnitude of the unidirectional voltage being substantially equal to that of the DC supply voltage; (ii) a pair of transistors series-connected between the first terminal and the second terminal; (iii) the pair of transistors connected together at a joint terminal; (iv) sub-circuitry functional to cause a substantially sinusoidal AC voltage to exist between the joint terminal and the reference terminal; and (v) the gas discharge lamp connected in circuit with the joint terminal and the reference terminal.

81. The arrangement of claim 80 wherein the third sub-circuit is additionally characterized by including a tuned LC circuit connected with the joint terminal as well as with the reference terminal.

82. The arrangement of claim 80 wherein the third sub-circuit is additionally characterized by including structure sufficient to cause it to constitute an inverter circuit that is self-oscillating, by way of positive feedback, at the frequency of the substantially sinusoidal AC voltage.

83. The arrangement of claim 80 wherein the first sub-circuit is additionally characterized in that: (i) it has an electrically conductive path between one of the DC supply terminals and one of the AC power input terminals; and (ii) it includes structure operative to cause the absolute magnitude of the DC supply voltage to be distinctly larger than the peak absolute magnitude of the AC power line voltage.

84. An arrangement comprising:

a first electronic assembly having AC power input terminals operable to connect with an AC power line voltage and, when indeed so connected, to provide a DC supply voltage of substantially constant magnitude between a pair of DC supply terminals; the first electronic assembly also having structure operative to cause the absolute magnitude of the DC supply voltage to be distinctly higher than the absolute peak magnitude of the AC power line voltage;

a gas discharge lamp having lamp terminals; and

a second electronic assembly having: (i) DC input terminals connected with the DC supply terminals; (ii) AC output

terminals connected with the lamp terminals by way of a current-limiting reactance means, thereby to supply the gas discharge lamp with an alternating lamp current of frequency substantially higher than that of the AC power line voltage; and (iii) an inductor means and a capacitor means being effectively parallel-connected across the AC output terminals, thereby to form a parallel-tuned L-C circuit resonant at or near the frequency of the alternating lamp current.

25 24
~~85~~. The arrangement of claim ~~84~~ wherein the first electronic assembly is additionally characterized by including structure functional, at least periodically, to cause an electrically conductive path to exist between one of the DC supply terminals and one of the AC power input terminals.

26 24
~~86~~. The arrangement of claim ~~84~~ wherein the second electronic assembly is additionally characterized by including a transistor as well as other structure connected with the DC input terminals in such manner as to cause the transistor to be subjected to a voltage of peak absolute magnitude in excess of the peak absolute magnitude of the AC power line voltage; the transistor alternating, at a frequency equal to that of the lamp current, between being conductive and being non-conductive.

27 24
~~87~~. The arrangement of claim ~~84~~ wherein the second electronic assembly includes at least one periodically conducting semiconductor, but does not include a periodically conducting thyristor.

28 24
~~88~~. The arrangement of claim ~~84~~ wherein the second electronic assembly is additionally characterized by having structure functional to cause it to draw a unidirectional current from the DC supply terminals by way of an inductor means.

29 28
~~89~~. The arrangement of claim ~~88~~ wherein the second electronic assembly is yet additionally characterized by including: (i) a pair of transistors, (ii) structure functional to cause the transistors to conduct in an alternating manner, and (iii) a parallel-tuned LC circuit; the alternatingly conducting transistors being operative to convert the unidirectional current to an alternating current; which alternating current is then being supplied to the parallel-tuned LC circuit.

30

~~90~~. An arrangement comprising:

a first electronic assembly having AC power input terminals operable to connect with an AC power line voltage and, when indeed so connected, to provide a DC supply voltage of substantially constant magnitude between a pair of DC supply terminals;

a gas discharge lamp having lamp terminals; and

a second electronic assembly having: (i) DC input terminals connected with the DC supply terminals; (ii) a pair of transistors connected together at a junction terminal; (iii) a pair of output terminals; (iv) structure sufficient to cause (a) the transistors to conduct alternatingly, (b) to cause a first substantially sinusoidal voltage to exist between the junction terminal and one of the DC supply terminals, and (c) to cause a second substantially sinusoidal voltage to exist between the output terminals; and (v) sub-circuitry connected between the output terminals and the lamp terminals, thereby to provide power to the gas discharge lamp.

H1 cont

31 30

~~91~~. The arrangement of claim ~~90~~ further characterized in that the two transistors are series-connected between a first terminal and a second terminal.

32

~~92~~. An arrangement comprising:

a first electronic assembly having AC power input terminals connected with an AC power line voltage and being functional to provide a DC supply voltage between a negative DC supply terminal and a positive DC supply terminal;

a gas discharge lamp having lamp terminals; and

a second electronic assembly having:

(i) DC input terminals connected with the DC supply terminals;

(ii) a pair of transistors connected together at a junction terminal;

(iii) a pair of output terminals;

(iv) structure functional (a) to connect the transistors in circuit with the DC input terminals, (b) to cause the transistors to conduct alternatingly, (c) to cause a substantially sinusoidal voltage to exist between the junction terminal and one of the DC supply terminals, and (d) to cause a substantially sinusoidal voltage to exist between the output terminals; and

(v) sub-structure connected between the output terminals and the lamp terminals, thereby to provide power to the gas discharge lamp.

33~~93~~. An arrangement comprising:

a source operative to provide, between a first and a second DC terminal, a DC voltage of substantially constant magnitude;

an inverter circuit connected with the DC terminals and functional to provide an inverter AC voltage between a reference terminal and an inverter output terminal; the inverter AC voltage being of frequency several times higher than 60 Hz and otherwise characterized in having a waveshape consisting of sinusoidally-shaped voltage pulses of alternating polarity; the inverter circuit including a tuned L-C circuit connected in circuit with the inverter output terminal and the reference terminal; the L-C circuit having a tank capacitor parallel-connected with a tank inductor and being resonant at or near the frequency of the inverter AC voltage; the inverter circuit being further characterized in that: (i) it includes a first intermittently conducting transistor having a first transistor terminal connected with the inverter output terminal in such manner that no voltage of substantial magnitude can exist between the transistor terminal and the inverter output terminal, the term substantial magnitude being defined as a magnitude larger than one tenth the magnitude of the inverter AC voltage; (ii) any AC voltage, of frequency equal to that of the inverter AC voltage, existing between the reference terminal and the first DC terminal is of negligible magnitude compared with the magnitude of the inverter AC voltage; and (iii) any AC voltage, of frequency equal to that of the inverter AC voltage, existing between the first and second DC terminals is of negligible magnitude compared with the magnitude of the inverter AC voltage; and

gas discharge lamp means connected in circuit with the L-C circuit.

34 33
~~94~~. The arrangement of claim ~~93~~ wherein the inverter circuit is additionally characterized by including a second transistor having a second transistor terminal; the second transistor terminal being connected with the first transistor terminal in such manner than no voltage of substantive magnitude can exist therebetween.

95. The arrangement of claim 93 wherein the end of each sinusoidally-shaped voltage pulse is spaced apart from the beginning of the next-following sinusoidally-shaped voltage pulse by a brief period of time; the duration of the brief period of time being shorter than the duration of each complete sinusoidally-shaped voltage pulse.

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35 96. (Amended) An arrangement comprising:

a source operative to provide, between a first and a second DC terminal, a DC voltage of substantially constant magnitude;

an inverter circuit connected with the DC terminals and functional to provide an inverter AC voltage between a reference terminal and an inverter output terminal; the inverter AC voltage being of frequency several times higher than 60 Hz and otherwise characterized in having a waveshape consisting of sinusoidally-shaped voltage pulses of alternating polarity; the inverter circuit including a tuned L-C circuit connected in circuit with the inverter output terminal and the reference terminal; the L-C circuit having a tank capacitor parallel-connected with a tank inductor and being resonant at or near the frequency of the inverter AC voltage; the inverter circuit being further characterized in that it includes two alternatingly conducting transistors series-connected between two auxiliary terminals between which exists a unidirectional voltage consisting of sinusoidally-shaped unidirectional voltage pulses, and having an [of] average magnitude substantially equal to that of the DC voltage.

H 2 cont

97. The arrangement of claim 96 wherein the inverter circuit is additionally characterized in that: (i) each sinusoidally-shaped voltage pulse is defined as a voltage pulse having the shape of a complete half-cycle of a substantially sinusoidal voltage; and (ii) at least under some conditions, the end of each sinusoidally-shaped voltage pulse is spaced apart from the beginning of the next-following sinusoidally-shaped voltage pulse by a brief period of time during which the instantanenous magnitude of the inverter AC voltage is substantially zero, the duration of the brief period of time being distinctly shorter than the duration of each complete sinusoidally-shaped voltage pulse.

36 98. An arrangement comprising:

a source providing, between a first and a second DC supply terminal, a constant-magnitude DC supply voltage;

H 3

an inverter circuit having a pair of AC output terminals as well as a first and a second DC input terminal;

inductor means having a first winding and a second winding; the first winding being connected between the first DC supply terminal and the first DC input terminal; the second winding being connected between the second DC supply terminal and the second DC input terminal; and

output means connected with the AC output terminals; the output means having lamp output terminals adapted to connect with a gas discharge lamp.

H3

37 36
~~99~~. The arrangement of claim ~~98~~ wherein the inverter circuit is further characterized by having a pair of transistors series-connected between the first and second DC input terminals.

38 36
~~100~~. The arrangement of claim ~~99~~ additionally characterized by: (i) one of the transistors having a transistor terminal; and (ii) the presence of a substantially sinusoidal voltage between said transistor terminal and one of the DC supply terminals.
